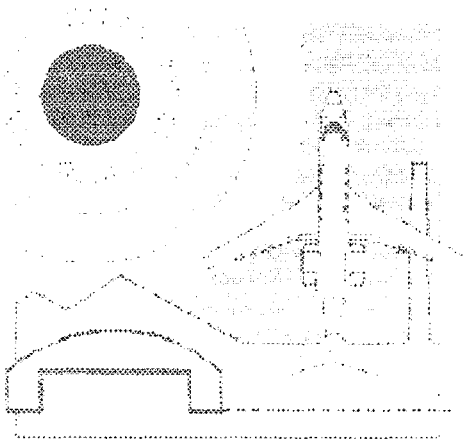
SECTION 1: INTRODUCTION AND BACKGROUND



BISBEE-DOUGLAS INTERNATIONAL AIRPORT
Douglas / Cochise County, Arizona

AIRPORT MASTER PLAN - 1997

SECTION I:
INTRODUCTION AND BACKGROUND

AIRPORT DEVELOPMENT: HISTORY AND BACKGROUND

This section of the Master Plan will provide a chronological history of the Bisbee-Douglas International Airport (BDI), based upon review of the available record documents compiled during an extensive inventory. A discussion of some of the historical factors which have had an impact upon the growth and development of BDI is also included.

Douglas Army Airfield: 1941-1948

At its entry into World War II, the United States was faced with the task of building an Armed Forces which would be capable of defeating the Axis nations on a worldwide battleground. At the beginning of the war, the U.S. Army, Navy, Marines and Army Air Forces had a total combined complement of 2,167,000 people. During the war years, this would peak at 14,905,000. The Army Air Forces in 1941 had a total of 210,000 servicemen and only 2,500 airplanes. During the war, this would peak at 2,400,000 servicemen and over 80,000 aircraft.

As U.S. industry geared up to manufacture the equipment for war, the Army and Navy began an unprecedented training program. The government began the expansion of existing bases and the construction of new training bases all over the country. New training airfields required an abundance of good flying weather and "wide open spaces". The desert southwest and western plains states were a natural selection for this endeavor, and air bases were built throughout the southwestern states, including several locations in Arizona.

The Bisbee-Douglas International Airport was initially constructed during 1941-1943 by the U.S. Army Corps of Engineers (through the War Department) as the Douglas Army Airfield, to become a major bomber training facility. During World War II, there were about 5,500 troops stationed at Douglas at any one time .

The original Douglas Army Airfield included seven operational runways, all over 7,000' in length. The runways included 17L-35R, 17R-35L, 8L-26R, 8R-26L, 3L-21R, 3R-21L, and 12-30. Most of these are still visible from the air although only Runways 17R-35L and 8L-26R are currently operational.

The original airbase had 141 buildings, including personnel barracks, warehouses, aircraft storage hangars, a commissary, civilian quarters, service clubs for officers and enlisted men, a small base hospital, as well as vehicular maintenance shops, recreational facilities, supply storage, specialty training, and ordinance buildings. The present airport terminal building served as the base administration building.

Most of the original buildings are no longer in existence. Five of the original hangars, the terminal building, a few small sheds, and a small training building remain. A state prison, constructed in 1987, now occupies the area which was once a large part of the landside operations area of the Douglas Army Airfield.

Throughout World War II, the Douglas Army Airfield fulfilled its role as a training base. After the war, the majority of the training bases were no longer needed. The War Assets Administration was set up to dispose of surplus items, including ships, vehicles, aircraft, and real estate - including many army airfields.

A New Regional Air Facility: 1949

On May 13, 1949, the U.S. government, acting through the War Assets Administration deeded the Douglas Army Airfield to Cochise County. The airfield was named Bisbee-Douglas International Airport and plans were made by the county to prepare the airport to serve as the major air commerce facility in the region.

In 1949-50, the base administration building was remodeled to serve as an airline terminal building. It included offices for airport and airline administration, a passenger lobby, restaurant, rest rooms, and a Flight Service Station. The terminal building remains today, for the most part, in its 1950's vintage configuration.

The U.S. Airline Industry: Development and Deregulation

Scheduled airline service was still in its infancy after World War II. The Douglas DC-2, a machine that could carry about 20 passengers and fly from coast to coast in a little more than 13 hours, had been introduced only as recently as 1934.

During World War II, U.S. airlines established routes to support military operations and soon became the dominant world airline power. By the end of the war, the scheduled routes with the largest passenger volume within the United States were the routes from New York City to San Francisco and Los Angeles, and from New York to Chicago. The postwar availability of large numbers of former military transport aircraft (particularly the Douglas DC-3 and DC-4), along with a rising demand for air transportation, furthered the expansion of United States airline activity. During this period some 20 local service airlines were established, mainly operating DC-3s, to develop feeder services that connected with the major points on the trunk airline routes.

A major technological breakthrough occurred with the introduction of the turbine engine. The first successful flight of a turbojet aircraft took place in 1939. By 1960 United States airlines had Boeing 707, Convair 880, Douglas DC-8 turbojet, and Lockheed Electra turboprop aircraft in service.

A trend in the 1950's and 1960's toward increased size was continued in the 1970's with the introduction of the jets, an innovation that resulted in chronic congestion at many major airports. In 1970 the Boeing 747 was introduced into service. This first of the wide-bodied jets could seat as many as 500 tourist-class passengers. Its first competitors, the Lockheed 1011 and McDonnell Douglas DC-10, could each seat up to 400 passengers.

The United States government had, in 1938, established an agency to regulate civil aviation. The Civil Aeronautics Board (CAB) was directed to grant airlines permission to fly specific routes and to charge certain fares. Throughout the 1960's and most of the 1970's, the U.S. airline industry was operating under this government-subsidized program, which guaranteed service on routes serving smaller communities.

The Airline Deregulation Act of 1978 reversed earlier policy. This legislation was meant to free the airlines from certain restrictions in order to encourage, through competition, an increased fare flexibility. Two stipulations of this act include the expiration of the CAB's power to assign specific routes to airlines and the cessation of its authority over the setting of domestic fares. The result of this was the demise of scheduled airline service to many smaller communities.

Planning for the Future: 1956-1975

The first Airport Layout Plan (ALP) record drawing for the Bisbee-Douglas International Airport was prepared by Johannessen & Girand Engineers - Phoenix, Arizona in 1956. The 1956 ALP recommended that Runways 17L-35R, 12-30, and 8R-26L be phased out, along with many taxiways and some of the bituminous aircraft parking aprons. The 1956 plan also recommended development of an industrial area where the current state prison now resides.

In 1957, under FAAP No. 9-02-013-710, Taxiways T-2 and part of Taxiway T-3 were constructed. Taxiway T-1 was reconstructed as part of this project. A 1958 improvement project (FAAP No. 9-02-013-5911) included additional pavement reconstruction. Plans were prepared by Johannessen, Girand & Taylor of Tucson, Arizona.

In 1960, the south 5,720' of Runway 17-35 was reconstructed, and perforated pipe underdrains were installed along its east edge. A new lighted wind cone was also installed at this time. Plans were prepared by Johannessen, Girand & Taylor under FAAP No. 9-02-013-12.

A VHF Omni Range/TACAN (VORTAC) radio navigation transmitter was installed at BDI in 1965 by the Federal Aviation Agency (now the Federal Aviation Administration).

The ALP was updated by Blanton & Company of Tucson, Arizona in 1967. By this time, the three runways and their serving taxiways had been phased out. During the 1960's, BDI had scheduled airline service. The critical aircraft being used was the Boeing 727 and Douglas DC-7. The ALP reflected design for these types, and recommended ultimate design for use by the Boeing 747. Recommendations also included extension of Runway 17-35 to an ultimate length of 10,290' (existing length is 7,290').

The ALP was again updated by Blanton & Company in 1974. This document indicates that the three "phased out" runways were again active, although they were probably not actually useable because of their condition. The recommended extension of Runway 17-35 is continued, along with ultimate installation of an Instrument Landing System (ILS) approach to Runway 17.

The 1974 ALP is the most current specific planning document for the BDI airport.

In 1974, a new 25,000 gallon elevated water tower was constructed. The tower is 140 feet tall, and is lighted with double-fixture obstruction lights.

A 1975 improvement project (ADAP 7-04-0013-01) included replacement of the Medium Intensity Runway Lighting (MIRL) system for Runways 17-35 and 8-26. The electrical vault was rehabilitated at this time, and taxiway guidance signs and a Visual Approach Slope Indicator (VASI-2) system was installed on Runway 17-35. Project engineers were Blanton & Company.

Airport Development at BDI: 1979 to the Present

Over recent years, there has been relatively little development activity at the Bisbee-Douglas International Airport. Although initially over built by the military for its subsequent airline role and present general aviation role, the airport now has deficiencies which are quite apparent.

Only two major airport improvement projects have been undertaken at BDI in recent years.

In 1979 Runway 17-35 was rehabilitated. The total costs for this project were $801,148. This was funded by an FAA grant for $728,207 (ADAP 5-04-0013-02) with State matching funds in the amount of $36,470.50 and County funding of the balance.

Runway 17-35 received a preservative seal coat in 1992. Only the center 60' of the runway were treated at this time, as a temporary maintenance process. Total costs were $190,000, funded by a State grant for $171,000 with Cochise County providing $19,000.

The Cochise County Airport System Plans: 1982 and 1994

The original Cochise County Airport System Plan was prepared in 1982 by Willdan Associates of Phoenix, Arizona. This plan focused on the apparent overbuilding and duplication of airport facilities in close proximity to one another within Cochise County, specifically the BDI, Douglas Municipal, Cochise College and Bisbee Municipal airports. Several alternatives for consolidation of airports within the county were suggested. Through the remainder of the 1980's and into the 1990's, however, each of the Cochise County airports have continued to be developed and improved by their owners, ostensibly to serve their respective "niche" markets.

In July of 1992, WLB Group of Tucson, Arizona was retained to update the Cochise County Airport System Plan. Although originally conceived as a "fast-track" planning program with a 14-week completion schedule (to take advantage of then-available funding), WLB did not complete the plan until March of 1994. (In the following discussion the 1994 Cochise County Airport System Plan will be referred to as the "1994 Plan".)

The goal of the 1994 Plan was to "determine the future aviation activity and demand at airports within Cochise County, in order to plan for future growth, improvements and expansion at these airports . . . without providing for redundant facilities".

The 1994 Plan noted that the BDI, Bisbee Municipal, Douglas Municipal and Cochise College airports have overlapping geographic service areas where these four airports serve the two population centers of Bisbee and Douglas. It was noted that 24 aircraft were based at BDI in 1992, up significantly from 10 in 1990. The number of aircraft based at BDI was attributed to the relatively low charges for aircraft storage. The 1994 Plan predicted that the number of based aircraft at BDI would decrease in the future as storage rates increased, because virtually all of the based aircraft's owners are within the overlapping service areas. However, the apparent decrease in their numbers is probably more attributable to derogation of the airport's pavements and a general downturn in the private aviation economy than increases in storage charges. Currently, the county charges only $40/month for hangar storage at BDI.

There are currently 24 aircraft based at BDI. This reflects an apparent stabilization in the number of based aircraft since 1992.

The 1994 Plan included forecasts of based aircraft and annual operations for each of the Cochise County airports. The forecasts for BDI are as follows:

	1992	1997	2002	2007	2012
Based Aircraft	24	25	27	28	30
Annual Operations	6,000	7,500	8,100	8,400	9,000

Source: Cochise County Airport System Plan, 1994

The 1994 Plan classified BDI as one of two Commercial/Business Service airports in the county, along with Libby AAF/Sierra Vista.

Recommended improvements for BDI included in the 1994 Plan consisted of only the following items:

- Installation of Runway End Identifier Lights (REIL) for Runway 17-35.
- Installation of a nondirectional radio beacon (NDB).
- Installation of Medium Intensity Taxiway Lighting (MITL) for Taxiways T1, T2, T3 and T4.
- Pavement overlays - Runways 17-35 and 8-26.
- Improved maintenance of existing facilities.

The National Plan of Integrated Airport Systems (NPIAS)

The National Plan of Integrated Airport Systems (NPIAS) identifies 3,294 existing airports that are significant to U.S. air transportation and provides estimates of development costs for its 5-year planning period. The purpose of NPIAS development is primarily to bring existing airports up to current design standards and to add capacity to congested airports.

The Bisbee-Douglas International Airport is included as a component of the NPIAS and, as such, is eligible to receive grants under the federal Airport Improvement Program (AIP).

The current NPIAS includes only projected numbers of based aircraft and estimated development costs for the 5-year planning period (1993-1997). For BDI, 33 based aircraft are forecast by 1997, and $1,174,000 is programmed for development.

The current NPIAS role of the BDI airport is "General Aviation" (GA). A NPIAS GA facility is an airport with no scheduled airline service and at least 10 based aircraft. As a general rule, GA airports included on the NPIAS must be at least 30 miles from another NPIAS airport. However, the Bisbee Municipal Airport is also included as a GA facility on the current plan.

FAA Terminal Area Forecasts

The FAA Terminal Area Forecasts (TAF) includes operational data for 873 U.S. airports, mainly those with operating control towers. While the current TAF does not include data for the BDI airport, it does include data regarding aviation activity within Arizona.

The TAF indicates that air carrier passenger enplanements in Arizona increased from 10.4 million in 1987 to 12.3 million in 1991, an 18% increase over five years. The TAF forecasts that enplanements will continue to grow at the rate of about 5% per year through the year 2005.

Operations by scheduled airlines within Arizona increased from 295,000 in 1987 to 363,000 in 1991, a 23% increase over the five-year period. The TAF predicts that airline operations will continue to increase at the rate of about 3% per year through 2005.

The TAF indicates that total aircraft operations within Arizona increased from 1.8 million in 1987 to 2.1 million in 1991. This represents a 17% increase over five years. TAF forecasts indicate that total operations will continue to increase at the rate of about 3% per year through the year 2005.

This apparent health in the Arizona aviation economy will affect the future demands placed upon the BDI airport facility.

Arizona Aviation System Plan and 1995 State Aviation Needs Study

The 1988 Arizona Aviation System Plan projected 11 based aircraft at BDI by 1996, increasing to 16 by the year 2010. Total annual operations were forecast to be 6,100 by 1996, increasing to 9,400 by 2010.

The 1995 Arizona State Aviation Needs Study (SANS) included projections of based aircraft for BDI, forecasting 10 aircraft by 2000 and increasing to 13 by 2015. The low numbers of based aircraft in the SANS are the result of using a base number of only 10 based aircraft in 1995. There are currently 24 aircraft based at BDI.

The 1995 SANS forecasts of general aviation operations indicates only 1,946 annual operations in 1995, increasing to 2,530 operations in 2015. These low activity projections are the result of the inaccurate based aircraft data noted above.

USE RESTRICTIONS ON BDI AIRPORT PROPERTY

As was mentioned in the above narrative, the BDI Airport was originally deeded by the federal government to Cochise County via a Quit Claim Deed, dated May 13, 1949. This action was taken by the War Assets Administration under Reorganization Plan One of 1947 (12 Federal register 4534), and the provisions of the Surplus Property Act of 1944.

The Quit Claim Deed conveyed the present airport property, as well as then-existing buildings and improvements. The conveyence was subject to several restrictions, including the following:

- That the "land, betterments, structures, improvements and equipment ... shall be used for public airport purposes for the use and benefit of the public ... without grant or exercise of any exclusive right for use of the airport...".

- That Cochise County "shall adequately clear and protect the aerial approaches to the airport by removing, lowering, relocating, marking or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards".

- That the U.S. Government "through any of its employees or agents shall at all times have the right to make nonexclusive use of the landing area of the airport ... without charge...". This use may be limited by the FAA so as to prevent "undue interference with use by other authorized aircraft...". This restriction also indicates that the Government will be obligated to pay for any damages caused by its use, and that it will"...contribute a reasonable share of the cost of maintaining and operating the landing area, commensurate with the use made by it".

- That "during any national emergency declared by the President of the United States of America or the Congress thereof, the (Federal) Government shall have the right to make exclusive or nonexclusive use and have exclusive or nonexclusive control and possession, without charge, of the airport...".

If the terms, conditions, and obligations contained in the restrictions of the 1949 conveyence are not met by Cochise County, the airport at the option of the FAA, may revert to the Government with sixty days' notice. Cochise County would be given the sixty days to comply with any condition which is in default.

Impacts of ADOC Development on Airport Land Use Restrictions

The 1949 Quit Claim Deed referenced above also includes the following verbage concerning the continued use of the Bisbee-Douglas International Airport as a public airport:

"...no property transferred by this instrument shall be used, leased, sold, salvaged, or disposed of by the party of the second part for other than airport purposes without the written consent of the Civil Aeronautics Administrator, which shall be granted only if said Administrator determines that the property can be used, leased, sold, salvaged or disposed of for other than airport purposes without materially and adversely affecting the development, improvement, operation or maintenance of the airport at which such property is located."

It should be noted that the office of the Civil Aeronautics Administrator (of the Civil Aviation Agency, or CAA) was succeeded by the Administrator of the Federal Aviation Administration (FAA).

The development of a prison on the BDI Airport property certainly does not meet the description of a "public airport use" as the original 1949 Quit Claim conveyance demanded. However, prior to the ADOC prison development, the County requested the Administrator of the FAA to release 72.62 acres of land for non-airport use. The FAA did issue an Instrument of Release which approved this release. The Instrument of Release includes the following text (these are excerpts, and with underlining by the consultant):

"WHEREAS, the County of Cochise, Arizona, has requested the Administrator of the Federal (Aviation) Administration to release 72.62 acres of land, more or less, hereinafter described, from all conditions, reservations, and restrictions contained in said "QUIT CLAIM DEED" to permit the sale of said parcels, and has by appropriate Resolution No. 81-07, dated February 10, 1981, obligated itself to devote the proceeds from the sale of any portion of said property exclusively for the development, improvement, operation, or maintenance of the Bisbee-Douglas International Airport;..."

"NOW, THEREFORE, ...the UNITED STATES OF AMERICA... hereby releases the real property described in Exhibit "A" attached hereto and made a part hereof, from the conditions, reservations, and restrictions of said "QUIT CLAIM DEED..."

The referenced Exhibit "A" which is attached to the Instrument of Release is the legal description of the entire airport property, as conveyed to Cochise County under the 1949 Quit Claim Deed. The

entire airport property encompasses approximately 2,672 acres. The present ADOC lease area encompasses about 354 acres.

At least two interpretations of the Instrument of Release are possible:

1. The FAA has released an undefined 72.62 acres of land within the airport property described in Exhibit "A" from the conditions of the original conveyance. The County requested release of only 72.62 acres, and the Instrument of Release says that it is releasing the requested 72.62 acres as "hereinafter described".

2. The FAA has released the entire airport property, as described in Exhibit "A", from the conditions of the original conveyance. The land "hereinafter described" covers the entire airport property.

It is recommended that the opinion of the County Attorney be sought to clarify this issue.

The above issue notwithstanding, the FAA Instrument of Release also reserves the airspace above the released property *"for the use and benefits of the public a right of flight for the passage of aircraft"*, and guarantees the County *"the right to cause in said airspace such noise as may be inherent in the operation of aircraft..."*.

The Instrument further restricts the ADOC development to a height of 4,080 feet above mean sea level *"on the real property conveyed"*.

According to the conditions of the Instrument of Release, the uses at the prison may not *"in any manner... interfere with air navigation and communication, and the landing and taking off of aircraft... or otherwise constitute an airport hazard"*.

It is the responsibility of the County to enforce the restrictions. The FAA, however, has reserved the right to enter the released property to correct any violations of its Instrument of Release. These corrections would be done at the expense of the County.

PLANNING ADVISORY COMMITTEE (PAC) PROCESS
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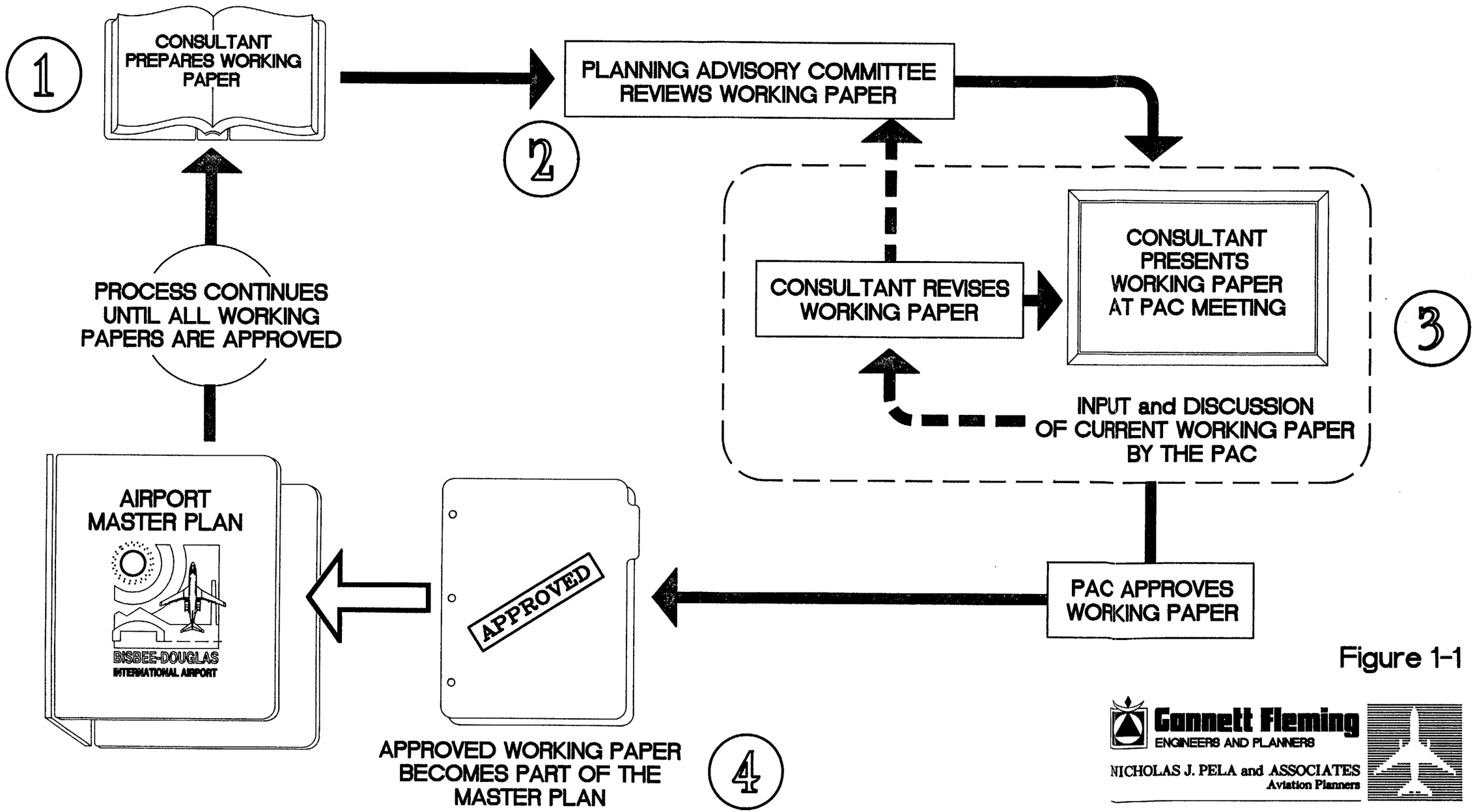

Figure 1-1

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